



X-Plain™

Cholecystectomy

Reference Summary

Gallstones are a relatively common condition that causes severe pain in the abdomen.

Your doctor may recommend surgery to remove your gallbladder. The decision whether or not to have this surgery is also yours. This reference summary will review the benefits and risks of this surgery.

Anatomy

Special juices called “bile” are made in the liver. Bile helps you digest food. The gallbladder is a small pouch that sits under the liver on the right side of the abdomen.



Bile passes from the liver to the gallbladder, where it is stored until it is needed. When you eat fatty foods, the gallbladder squeezes the bile through the cystic duct to the common bile duct.

Symptoms And Their Causes

Stones can form in the gallbladder. These stones can move and block the cystic duct, causing severe

pain.

This pain is located mainly in the right side of the abdomen after eating fatty food such as eggs or pizza.

Stones could also cause nausea, vomiting, fever, and infection. If a stone moves to the common bile duct and gets stuck, it can cause pain, a yellowish discoloration of the skin known as “jaundice,” and inflammation.



Alternative Treatments

Diet changes can sometimes help with the symptoms.

Antibiotics can help treat the infection, but they do not eliminate the stones.

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Taking the gallbladder out is frequently necessary to control the symptoms.

Most of the bile made in the liver flows directly to the intestine and is not stored in the gallbladder. Therefore, when the gallbladder is removed, the juices made in the liver can still flow into the intestines and help with digestion.

Surgical Treatment

There are two ways to take out the gallbladder. One method uses a big skin incision and is known as open cholecystectomy. The other method is done with scopes and smaller incisions. It is known as laparoscopic cholecystectomy.

The benefits of the laparoscopic operation are a faster recovery period and shorter hospital stay. Unfortunately, not everybody is a candidate for this operation. For example, patients who have had previous surgeries in their abdomen may not be able to have this procedure.

Sometimes the surgeon can start a laparoscopic operation and end up having to switch to an open surgery. This is usually done if the surgeon realizes that the open surgery is safer for the patient. Switching from laparoscopic to an open operation rarely happens. The laparoscopic and open surgeries are performed under general anesthesia, meaning the patient is asleep during the operation.

In the open surgery, the surgeon makes an incision

in the upper abdomen. The peritoneum, or abdominal cavity, is then entered. The gallbladder is removed. X-rays may be taken during the surgery to determine if stones are stuck in the common bile duct.

Rarely, stones can be present in the common bile duct. If so, the duct may be opened and explored and the stones removed. If the bile duct is explored, the bile is drained to the outside with a special drain. This helps the duct heal. This drain is taken out several days or weeks later. After placing the drain, if it is needed, the surgeon closes the incision.

In a laparoscopic operation, the abdominal cavity is filled with a special gas. Multiple small incisions are then made. Scopes are inserted in the abdominal cavity. The gallbladder is then separated from the common bile duct and taken out.

Rarely, stones may be present in the common bile duct. X-rays may be taken during the surgery to check that possibility. If so, they can be removed with a scope or by converting to an open surgery. They can also be removed during a separate procedure. Your surgeon will determine the most appropriate option for your condition.

After the laparoscopic surgery, the small incisions are closed.

Risks And Complications

This surgery is very safe. There are, however, several possible risks and complications. These are unlikely but possible. You need to know about them just in case they happen. By being informed, you may be able to help your doctor detect complications early.

The risks and complications include those related to anesthesia and those related to any type of surgery. Risks related to anesthesia include, but are not limited to: strokes, kidney failure, pneumonia, and blood clots in the legs.

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Your anesthesiologist or nurse anesthetist will discuss these risks with you in greater detail.

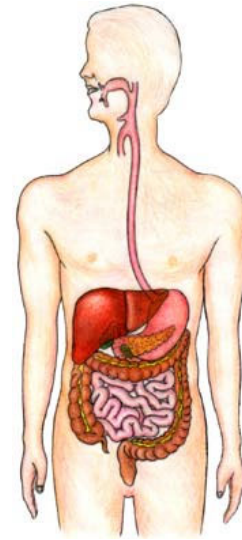
Blood clots in the legs can occur. These usually show up a few days after surgery. They cause the leg to swell and hurt.

They can be dislodged from the legs and go to the lungs, where they will cause shortness of breath, chest pain, and possibly even death. Sometimes the shortness of breath can happen without prior warning. It is therefore extremely important to let your doctors know if any of these symptoms occur. Getting out of bed shortly after surgery may help decrease the risk of blood clots.

Some of the risks are seen in any type of surgery. These include:

- Infection, deep or at the skin level. Infections can involve the abdomen incision. Deep infections may involve the abdominal cavity itself. This is known as peritonitis. Treating deep infections may require long-term antibiotics and possibly surgery.
- Bleeding, either during or after the operation. This may necessitate a blood transfusion, or another operation.
- Skin scar.

Other risks and complications are related specifically to this surgery. These, again, are very rare. However, it is important to know about them. Structures in the abdomen could be damaged. These include the liver and the common bile duct.



The intestines and stomach could be perforated. The blood vessels going to the liver could be affected. Damage to these structures could lead to permanent damage and the necessity to proceed with other operations. These, again, are very rare. Death may result from these complications, but this is extremely rare.

Hernias through the incisions are possible. This happens if the internal wall of the abdomen is weak and intestines push under the skin. This may require another operation.

After The Surgery

After the operation is done, you are transferred to the recovery room and then to a regular room. A tube will be connected to your vein to provide nourishment until you can eat and drink again. Your nurse will help you walk as soon as possible so you can circulate blood in your legs. This prevents blood clots.

You will go home in a few days, depending on which procedure you had and how well you are doing. Make sure to contact your doctor in case of any new symptoms, such as fever, severe abdominal pain, weakness, swelling, or infection.

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Summary

Gallstones cause severe pain, and the pain is likely to increase if left untreated. Removing the gallbladder through surgery relieves the symptoms. Juices made in the liver can still flow into the intestines and help with digestion.

Gallbladder surgery is very safe and very successful. Risks and complications are very rare. Knowing about them will help you detect and treat them early.

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